

F. W. RENTZSCH.

LAMP-LIGHTER.

No. 179,061.

Patented June 20, 1876.

FIG. 1.

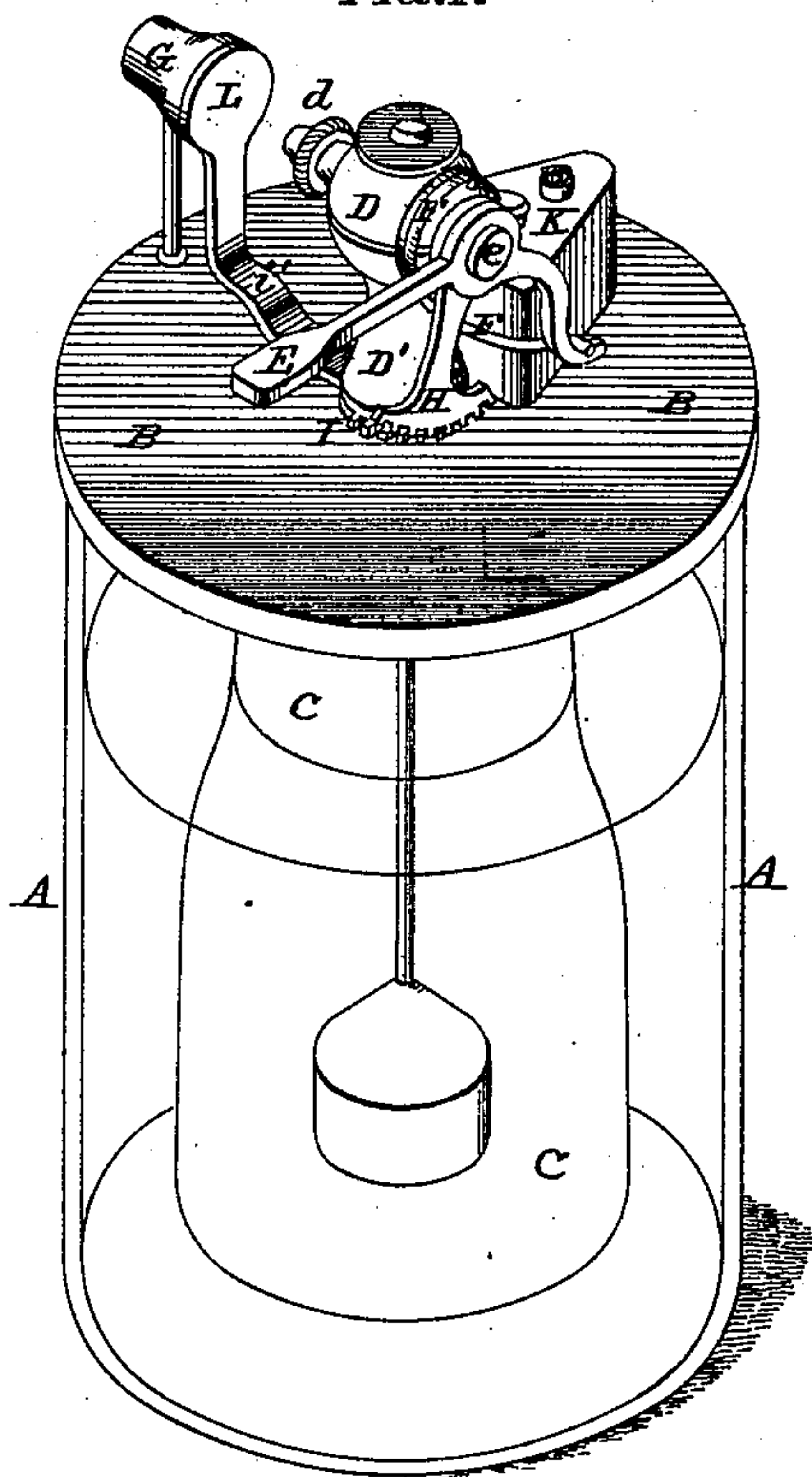
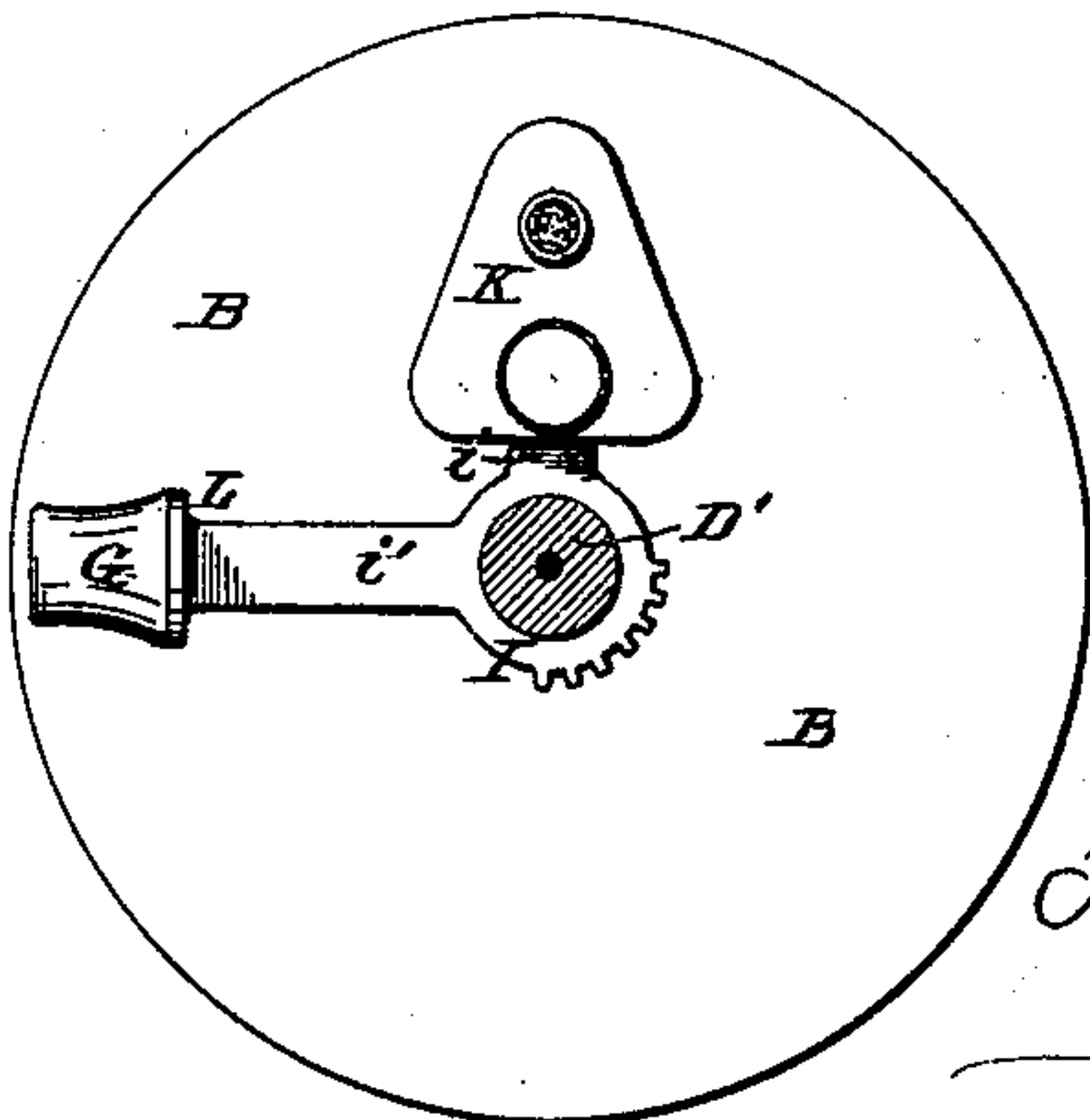


FIG. 2.



ATTEST:

Robert Burns.
Le Blond Burdett

INVENTOR:

Friedrich W. Rentzsch
By Knight Bro.
Atty.

UNITED STATES PATENT OFFICE.

FRIDRICH W. RENTZSCH, OF CHAMOIS, MISSOURI, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILL J. KNOTT, OF SAME PLACE.

IMPROVEMENT IN LAMP-LIGHTERS.

Specification forming part of Letters Patent No. **179,061**, dated June 20, 1876; application filed May 4, 1876.

To all whom it may concern:

Be it known that I, FRIDRICH W. RENTZSCH, of Chamois, Osage county, State of Missouri, have invented a certain new and useful Improvement in Lamp-Lighters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

The improvement consists of certain novel attachments to the well-known hydrogen-lamp. It consists of a turn-plate, actuated by the same lever that operates the valve governing the hydrogen-jet. This plate carries a lamp, whose wick is carried into the course of the jet simultaneously with the opening of the valve, so that when the jet of hydrogen becomes ignited by impingement upon the platinum sponge the lamp will be lighted. On freeing the lever from the pressure of the finger it is carried upward and the valve closed, and the lamp swung around out of the course of the jet by a spring. The turn-plate is further provided with an arm, carrying a vertical plate or shield, which closes the opening of the chamber containing the platinum sponge when the valve is closed, but which is swung out of the course of the jet when the valve is opened.

Figure 1 is a perspective view. Fig. 2 is a sectional plan.

A is the tank, made, preferably, of glass, and containing the weak solution of sulphuric acid. B is the cover, which may fit loosely on the top of the tank. To the cover is attached the hydrogen-gas reservoir C, in which is suspended the block of zinc for generating the gas. D is the valve through which the gas passes to escape through the nozzle *d* in a jet, which impinges upon the platinum sponge contained in the open head or casing G. The head G is open at both sides in the course of the jet of gas, and said jet, passing

through it, causes the sponge to become incandescent, so as to ignite the stream of hydrogen.

The valve D is operated by a handle or lever, E, which is held in its upper position (with the valve closed) by a spring, F, as shown in Fig. 1.

To the stem *e* of the valve D is attached a cog-segment, H, that engages the cogs on the edge of a turn-plate, I, surrounding the lower part of the valve-standard D'. This plate I has an arm, *i*, carrying an ordinary lamp, K. *i'* is an arm extending from turn-plate I, carrying a vertical shield or cover, L, which closes the inner mouth of the platinum-sponge chamber or case G when the valve is closed.

Operation: The arrangement is such that as the handle E is depressed to open the valve D the turn-plate is caused to make a partial rotation, carrying the shield L away from the mouth of case G, and bringing the lamp K around so that its wick is in line with the hydrogen-jet, which is ignited by impingement upon the platinum sponge, and the lamp is lighted. The handle E is then released, and is drawn up by the spring F, and the valve is closed, the lamp carried away from the course of the jet, and the shield brought around to close the mouth of the platinum-sponge case G.

I claim—

1. In combination with a hydrogen-lamp, the turn-plate I, carrying a lamp, K, and operated by connection with the valve-handle E, substantially as set forth.

2. The turn-plate I, carrying a shield or cover, L, in combination with a valve-handle, E, and platinum-sponge chamber or case G of a hydrogen-lamp, substantially as set forth.

FRIDRICH WILHELM RENTZSCH.

Witnesses:

S. P. CRAIG,
B. J. RAUCK.

Handwritten: 1750 words.